

Office of Environmental Health Hazard Assessment



Linda S. Adams
Secretary of Environmental Protection

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Arnold Schwarzenegger
Governor

February 26, 2007

Ms. Danielle Blacet
Association of California Water Agencies
910 K Street, Suite 100
Sacramento, California 95814-3512

Dear Ms. Blacet:

In response to your recent request for guidance in complying with the public notification requirements of Health and Safety Code Section 116470 (2) [b], the Office of Environmental Health Hazard Assessment (OEHHA) is enclosing a report based on an update of the one we sent to ACWA about three years ago, in January 2004. The report includes two tables to provide the numerical health risks and category of health risk information for all chemicals covered by Section 116470.

Under the Calderon-Sher Safe Drinking Water Act of 1996 (the Act), water utilities are required to prepare a report every three years for contaminants that exceed public health goals (PHGs) in drinking water (Health and Safety Code Section 116470 (2) [b]). The numerical health risk is to be presented with the category of health risk. PHGs are published by OEHHA as concentrations of contaminants in drinking water that OEHHA, using current risk assessment principles, practices and methods, considers to pose no significant health risk if consumed for a lifetime (Health and Safety Code Section 116365).

The two tables in this report summarize health risks for chemical contaminants that have PHGs and state and/or federal regulatory standards of maximum contaminant levels (MCLs). As defined in the Act, PHGs for noncarcinogenic chemicals are set at a concentration "at which no known or anticipated adverse health effects will occur, with an adequate margin of safety." For carcinogens, PHGs are set at a concentration that "does not pose any significant risk to health" and health risk numbers are being provided in the first table.

The Act requires that for chemical contaminants with California MCLs that do not yet have PHGs, water utilities will use the federal maximum contaminant level goal (MCLG) to comply with the requirement of public notification. MCLGs, like PHGs, are strictly health

California Environmental Protection Agency

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based. One difference, however, is that the MCLGs for carcinogens are set at zero because the United States Environmental Protection Agency (U.S. EPA) assumes there is no absolutely safe exposure level. PHGs for carcinogens, on the other hand, are set at a level considered to pose no significant risk of cancer; which is defined for this purpose as less than a one-in-a-million excess cancer risk (1×10^{-6}) for a lifetime of exposure. Chemicals with MCLGs but no PHGs are presented in the second table. The cancer risks shown are based on the U.S. EPA's evaluations. For noncarcinogens, the MCLGs have been set with a margin of safety.

The health risks shown in the tables are based on long-term exposures to low levels of contaminants as would occur with drinking water unless otherwise stated, rather than high doses from a single or short-term exposure. The potential health effects listed are the most sensitive adverse effects that occur when chemical exposure reaches a sufficient level and duration to produce toxicity; additional effects may occur at higher doses. Health goals that protect against the listed effects also protect against health risks that would occur from short-term exposures. For most health risk categories, the specific health outcome or the organ or system that is affected is also given.

If you have further questions or would like to discuss these issues further, please contact Dr. Anna Fan, Chief, Pesticide and Environmental Toxicology Branch or Dr. Robert Howd, Chief, Water Toxicology Section at (510) 622-3170.

Sincerely,

George V. Alexeeff, Ph.D., D.A.B.T.
Deputy Director for Scientific Affairs

Enclosures

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